

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Xiao-An Zhang et al.

Confirmation No.:

Application No.: 10/618/358

Examiner:

Filing Date: July 10, 2003

Group Art Unit:

Title: Molecular Mechanical Devices with a Band Gap Change Activated by an Electric Field for Optical Switching Applications

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ☒ under 37 CFR 1.97(b), or
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:
☐ Statement under 37 CFR 1.97(e), or
☐ a \$180.00 fee under 37 CFR 1.17(p), or
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97 (d) together with a:
☐ Statement under 37 CFR 1.97(e)(1) or (2), and
☐ a \$180.00 fee set forth in 37 CFR 1.17(p).
(Filed after final action, a notice of allowance, on or before payment of the issue fee)

Please charge to Deposit Account **08-2025** the sum of \$0.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **08-2025** pursuant to 37 CFR 1.25.

☒ Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Citation together with copies, of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individuals(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

"Express Mail" label no. **EV 349477142**

Date of Deposit **Sept. 16, 2003**

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, Alexandria, VA 22313-1450.

By Myra B. Christeck

Typed Name: Myra B. Christeck

Respectfully submitted,

Xiao-An Zhang et al.

By David W. Collins

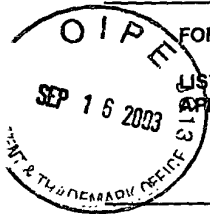
David W. Collins

Attorney/Agent for Applicant(s)
Reg. No. **26,857**

Date: **Sept. 16, 2003**

PATENT APPLICATION

Sheet 1 of 4



FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

10013977-3

APPLICATION NO.

CONFIRMATION NO.

APPLICANT

Xiao-An Zhang et al.

FILING DATE

filed herein

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	1A	6,128,214	10/3/2000	Kuekes et al.	Background Reference
	1B	5,655,038	8/5/1997	Schilling	Background Reference
	1C	6,470,105 B2	10/22/2002	Baney et al.	Background Reference
	1D	6,198,655 B1	3/6/2001	Heath et al.	Background Reference
	1E				
	1F				
	1G				
	1H				
	1I				
	1J				
	1K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	1L					
	1M					
	1N					
	1O					
	1P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	1Q	Collier, C.P., et al., "Electronically Configurable Molecular-Based Logic Gates", Science, Vol. 285, 16 July 1999, pp 391-394.
	1R	Collier, C.P., et al., "A [2] Catenane-Based Solid State Electronically Reconfigurable Switch", Science, Vol. 289, 18 August 2000, pp 1172-1175.
	1S	Morales, A.M., et al., "A Laser Ablation Method for the Synthesis of Crystalline Semiconductor Nanowires", Science, Vol. 279, 11 January 1993, pp 208-211.

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	2L					
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	2N					
	2O					
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OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

2Q	Heath, J.R., et al., " A Liquid Solution Synthesis of Single Crystal Germanium Quantum Wires", Chemical Physics Letters, Vol. 208, 11 June 1993, pp 263-268.
2R	Menon, V.P., et al., "Fabrication and Evaluation of Nano-Electrode Ensembles", Analytical Chemistry, Vol. 67, 1 July 1995, pp 1920-1928.
2S	Vossmeier, T., et al., "Combinatorial Approaches Toward Patterning Nanocrystals", Journal of Applied Physics, Vol. 84, 1 October 1998, pp 3664-3670.

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PATENT APPLICATION

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OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

3Q	Leff, D.V., et al., "Thermodynamic Control of Gold Nanocrystal Size: Experiment and Theory", The Journal of Physical Chemistry, Vol. 99, 4 May 1995, pp 7036-7041.
3R	Holloway, J.D., et al., "Electron-Transfer REactions of Metallocenes: Influence of Metal Oxidation State on Structure and Reactivity", Journal of the American Chemical Society, Vol 101, 11 April 1979, pp 2038-2044.
3S	Collier, C.P., et al., "Electronically Configurable Molecular-Based Logic Gates", Science, Vol. 285, 16 July 1999, pp 391-394.

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	4P				

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

4Q	Greenberg, Charles B., "Opically Switchable Thin Films: A Review", Thin Solid Films, Vol. 251, (1994), pp 81-93.
4R	Mortimer, Roger J., "Electrochromic Materials", Chemical Society Reviews, Vol. 26, 1997, pp 147-156.
4S	

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